

Title (en)  
OIL-INJECTED SCREW AIR COMPRESSOR

Title (de)  
ÖLEINGESPRITZTER SCHRAUBENLUFTVERDICHTER

Title (fr)  
COMPRESSEUR D'AIR À VIS À INJECTION D'HUILE

Publication  
**EP 3315780 B1 20181226 (EN)**

Application  
**EP 16196221 A 20161028**

Priority  
EP 16196221 A 20161028

Abstract (en)  
[origin: EP3315780A1] An oil-injected screw air compressor (100) includes a first stage compression chamber (130), an air buffering chamber (140) coupled to the first stage compression chamber (130), a second stage compression chamber (150) coupled to the air buffering chamber (140), a first oil cooling device (230) for cooling lubricating oil for the first stage compression chamber (130) and the air buffering chamber (140), a second oil cooling device (430) for cooling lubricating oil for the second stage compression chamber (150) and the first oil cooling device (230), a plurality of sensors (132, 142, 152) respectively located at the first stage compression chamber (130) outlet and the second stage compression chamber (150) outlet, and a control unit (300) respectively and dynamically controlling the first oil cooling device (230) and the second oil cooling device (430) according to preset pressure and temperature data measured by the sensors (132, 142, 152) or pressure and temperature data measured by the sensors (132, 142, 152), and temperature data and humidity data of an environment. The first oil cooling device (230) and the second oil cooling device (430) are connected in series.

IPC 8 full level  
**F04C 18/16** (2006.01); **F04C 23/00** (2006.01); **F04C 29/00** (2006.01)

CPC (source: CN EP US)  
**F01P 3/20** (2013.01 - US); **F02B 23/04** (2013.01 - US); **F02M 26/47** (2016.02 - US); **F02M 53/08** (2013.01 - US); **F04C 18/16** (2013.01 - EP US); **F04C 23/001** (2013.01 - EP US); **F04C 28/28** (2013.01 - CN); **F04C 29/0007** (2013.01 - US); **F04C 29/0014** (2013.01 - EP US); **F04C 29/021** (2013.01 - CN); **F04C 29/04** (2013.01 - CN); **F02D 41/1441** (2013.01 - US); **F04C 2210/1005** (2013.01 - EP US); **F04C 2270/185** (2013.01 - EP US); **F04C 2270/195** (2013.01 - EP US)

Citation (opposition)  
Opponent : Atlas Copco Airpower, naamloze vennootschap  
• WO 2016117037 A1 20160728 - MITSUBISHI ELECTRIC CORP [JP]  
• US 4289461 A 19810915 - VAN OORSCHOT GOSEWINUS F, et al  
• CN 104676935 A 20150603 - MITSUBISHI ELECTRIC CORP  
• JP 2010138881 A 20100624 - NIKKI PLANTEC KK  
• CN 202023716 U 20111102 - BEIJING FUSHENG MACHINERY CO LTD  
• CN 103742416 A 20140423 - SHANGHAI RUICHEN ENVIRONMENTAL PROT TECHNOLOGY CO LTD  
• JP 2006316696 A 20061124 - KOBE STEEL LTD  
• US 2015362212 A1 20151217 - YAMAMOTO KENTARO [JP], et al  
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• WO 2016117037 A1 20160728 - MITSUBISHI ELECTRIC CORP [JP]

Cited by  
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